Executive Summary

The Pekin Lake State Fish & Wildlife Area (SFWA) - Southern Unit Critical Restoration Project area is part of the Pekin Lake SFWA. The SFWA is located along the Illinois River immediately downstream of Peoria Lock and Dam and adjacent to and west of the communities of Pekin, North Pekin, and Marquette Heights. The area is generally bounded by the Illinois River (Rock Island District uses the term Illinois Waterway in some reports/documents, but that this report will use Illinois River) to the west, the communities mentioned above to the east, Peoria Lock and Dam/Interstate 474 to the north, and Illinois Highway Route 9 to the south. The SFWA is divided into two units, North and South. Perpendicular to the general layout of the SFWA is a rubble causeway supporting Central Illinois Light Company (CILCO) high voltage transmission lines. The corridor is 400 feet wide and owned by CILCO. This investigation deals exclusively with the Southern Unit of the Pekin Lake SFWA.

Specific authority to conduct the Pekin Lake SFWA – Southern Unit Critical Restoration Project is contained in Section 519 of the Water Resources Development Act of 2000.

The principal goals of the project are Restoration of aquatic habitat through the introduction of depth diversity and over-wintering habitats. Currently, this reach of the Illinois River lacks any deep-water overwintering habitat for fish outside of the 9-foot navigation channel. Opportunities were explored to address these conditions. Goals to achieve ecosystem restoration include: (1) improve aquatic habitat; (2) improve wetland habitat; (3) improve terrestrial habitat.

MEASURES FOR PEKIN LAKE – SOUTHERN UNIT SFWA

The following alternative plans for Pekin Lake SFWA – Southern Unit were evaluated over a 50-year period of analysis to achieve project goals and objectives:

S0. No Action

S1. 6.6 Acres of Dredging with 7.2 Acres of Onsite Placement Mast Trees

S2. 26.8 Acres of Dredging with 28.0 Acres of Onsite Placement for Mast Trees

S3. 26.7 Acres of Dredging with 34.9 Acres of Onsite Placement for Wetland Restoration

S4. 45.7 Acres of Dredging with 47.9 Acres of Onsite Placement for Mast Trees and Wetland Restoration

S5. 45.7 Acres of Dredging with 42.8 Acres of Onsite Placement for Mast Trees and Wetland Restoration

S6. 40.6 Acres of Dredging with 43.9 Acres of Onsite Placement for Mast Trees and Wetland Restoration.

RECOMMENDATION

The recommended plan for this project is S5. It is recommended that the Secretary of the Army for Civil Works approve the proposed project to include constructing in Pekin Lake SFWA – Southern Unit, 45.7 Acres of Dredging with Onsite Placement for Mast Trees and Wetland Restoration.

This alternative involves dredging deep channels into Soldwedel Lake and Lake of the Woods from the Illinois River with additional dredging of fingers, shelves, and deep holes in Lake of the Woods and Soldwedel Lake (See Plate 5). Dredged material would be sidecast adjacent to the channels with additional placement of 13,000 CY of material at **Site E** and 320,720 CY of material at **Site B**. Material would also be placed to create islands **C1** (1,500 CY), **C2** (2,500 CY), **C3** (39,000 CY), **C4** (2,500 CY) and **C5** (1,500 CY).

The current estimated first cost of the recommended plan is $7,571,270. This total estimated project cost includes construction of the project features; planning, engineering, and design; construction management; real estate; and monitoring. Implementation would be cost shared 65% by the Federal Government and 35% by the Illinois Department of Natural Resources (IDNR), the Non-Federal Sponsor. The Federal contribution is estimated at $4,921,944 and the non-Federal contribution is estimated at $2,649,944. The IDNR would provide all Lands, Easements, Rights-of-Way, Relocation, and Dredged or Excavated Disposal Areas (LERRD). The IDNR would also be responsible for the operation and maintenance of the project. The operation and maintenance of these features is estimated to cost $7,115 annually.